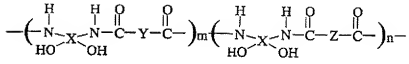
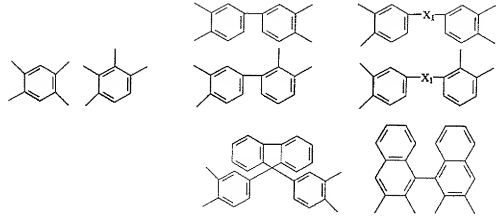
CLAIMS

1. A hydroxypolyamide having a structure represented by the general formula (1):



... (1)

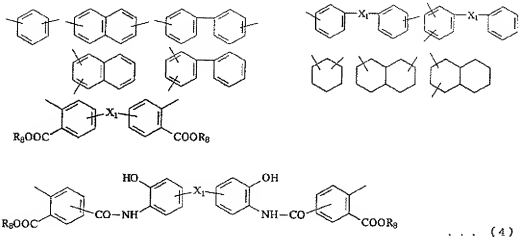
wherein m and n are integers satisfying $m > 0$, $n \geq 0$, $2 \leq m+n \leq 1{,}000$, and $0.05 \leq m/(m+n) \leq 1$, and the recurring units may be arranged blockwise or randomly; X represents at least one tetravalent organic group selected from groups represented by the following formula (2); Y represents 5-aminoisophthalic acid having at least one hydrogen atom of the amino group substituted, from which a carboxylic acid group is excluded; and Z represents at least one divalent group selected from groups represented by the following formula (4),



... (2)

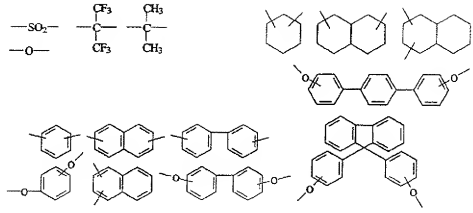
wherein X_1 represents a divalent organic group selected

from groups represented by the following formula (5); and the hydrogen atoms on each aromatic ring may be substituted with at least one group selected from the group consisting of a methyl group, an ethyl group, a propyl group, an isopropyl group, a butyl group, an isobutyl group, a t-butyl group, a fluorine atom, and a trifluoromethyl group,



. . . (4)

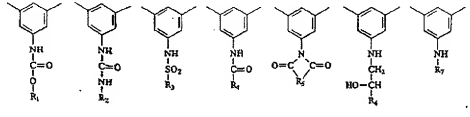
wherein R_8 represents a monovalent organic group; X_1 represents a divalent organic group selected from groups represented by the following formula (5); and the hydrogen atoms on each aromatic ring may be substituted with at least one group selected from the group consisting of a methyl group, an ethyl group, a propyl group, an isopropyl group, a butyl group, an isobutyl group, a t-butyl group, a fluorine atom, and a trifluoromethyl group, and



. . . (5)

wherein the hydrogen atoms on each aromatic ring may be substituted with at least one group selected from the group consisting of a methyl group, an ethyl group, a propyl group, an isopropyl group, a butyl group, an isobutyl group, a t-butyl group, a fluorine atom, and a trifluoromethyl group.

2. The hydroxypolyamide according to claim 1 wherein Y represents at least one divalent organic group selected from groups represented by the following formula (3):



. . . (3)

wherein R_1, R_2, R_3, R_4, and R_6 are each independently a monovalent organic group; R_5 is a divalent organic group; R_7 is at least one group selected from the group consisting of an aralkyl group, an arylsulfenyl group,

a diarylphosphinyl group, and a tri-substituted silyl group; and the hydrogen atoms on each aromatic ring may be substituted with at least one group selected from the group consisting of a methyl group, an ethyl group, a propyl group, an isopropyl group, a butyl group, an isobutyl group, a t-butyl group, a fluorine atom, and a trifluoromethyl group.

3. A resin composition comprising 100 parts by mass of the hydroxypolyamide according to claim 1 or 2 (A) and 70 to 900 parts by mass of an organic solvent (D).

4. A resin composition comprising 100 parts by mass of the hydroxypolyamide according to claim 1 or 2 (A), 1 to 50 parts by mass of a crosslinking agent (B), and 70 to 900 parts by mass of an organic solvent (D).

5. A resin composition comprising 100 parts by mass of the hydroxypolyamide according to claim 1 or 2 (A), 1 to 100 parts by mass of an optically active compound with a naphtoquinonediazide group (C), and 70 to 900 parts by mass of an organic solvent (D), and having positive photosensitivity.

6. A resin composition comprising 100 parts by mass of the hydroxypolyamide according to claim 1 or 2 (A), 1 to 50 parts by mass of a crosslinking agent (B), 1 to 100 parts by mass of an optically active compound with a naphtoquinonediazide group (C), and 70 to 900 parts by mass of an organic solvent (D), and having positive photosensitivity.

7. The resin composition according to claim 4 or 6 wherein the crosslinking agent (B) is an acrylate compound.

8. The resin composition according to claim 4 or 6 wherein the crosslinking agent (B) is an epoxy compound.

9. A process for producing a cured relief pattern, comprising the steps of: applying the resin composition according to claim 5 or 6 onto a substrate; exposing the resultant coating film to an active light through a mask or directly irradiating the coating film with actinic rays; eluting and removing the part exposed or irradiated with the actinic rays using a developer; and heating the resultant positive relief pattern at 150 to 400°C.

10. A semiconductor device having a layer made of a cured relief pattern obtained by the production process according to claim 9.